



The Navajo Nation Department of Head Start

How the Navajo Nation Department of Head Start is using technology to help build a sustainable community while maintaining traditional values.





Satellite and wireless communications are starting to deliver collaborative distance education, health, e-governance and commerce to individuals and families in one of the most rural parts of the United States.

A detailed map of the Navajo Nation, showing its extensive territory across the southwestern United States. The map is divided into numerous small, irregularly shaped regions, each labeled with the name of an Indian reservation. The labels are in a small, black, sans-serif font. The map includes geographical features like mountains and rivers, and shows the borders of the Navajo Nation with neighboring states and countries. The overall color scheme is a light beige background with black outlines for the reservation boundaries and labels.

The main area of the Navajo Nation extends through a large portion of Arizona and into New Mexico and Utah. The land base of 25,351 square miles, comprising 16 million acres, is approximately the size of West Virginia. The Navajo Nation itself constitutes 36% of all Indian lands in the lower 48 States.

2



The Navajo Nation Department of Head Start

In addition to the Navajo Nation proper, there are also three other major Navajo Chapters in New Mexico that are separated from the main Navajo reservation. These chapters are the Alamo Navajo Chapter made up of 63,109 acres; the Ramah Navajo Chapter made up of 146,953 acres and the Canoncito Navajo Chapter made up of 76,813 acres. All three of these Navajo Chapters are located in New Mexico.

The economy of the Navajo Nation is comparable to that of a third world country. High unemployment rate, lack of income, paved roads, modern housing and amenities, lower education level, high poverty rate, an historic lack of communication infrastructure are just a few examples of the problems faced by the Navajo people.

- The Unemployment rate on the Navajo Nation is almost 11 times more than in the United States,
- Per Capita Income on the Navajo Nation is 4.59 less than the rest of the United States,
- The Navajo Nation has the worst poverty rate in the United States (56.1 percent), and
- No less than 60 percent of Navajo Nation monies is spent in off-reservation communities,
- Only 15% of Native households have computers,
- Only 22% of Navajo households have telephones,
- Only 47% of Native households on all Four Corners reservations have telephones, while
- 94% of American households have telephones.

In the remote areas of the Navajo Nation, the problem is intensified by lack of transportation. A ride to Gallup, New Mexico from Low Mountain, Arizona, for example, costs as much as \$60 round-trip provided someone volunteers to make the trip. Cost and time worsen during the winter months.

The Navajo Nation Division of Community Development and The Bill and Melinda Gates Foundation

The Gates Foundation in partnership with OnSat provided satellite based connectivity and computers to 108 Chapter Houses for Free Public Access Computing

In 1999, the Gates Foundation started the Native American Access to Technology Project (NATP) to meet technology and access to information needs of Native American tribes in the Four Corners area. In partnership with the Navajo Nation and OnSat (a satellite and wireless provider) computers and high speed connectivity was achieved at every Chapter House on the Navajo Nation. From 2 to 15 computers are now connected to broadband Internet and providing free public access at every Chapter on the Navajo Nation.

Five main objectives:

1. Empower Native communities by providing access to digital information resources and the Internet. This was not an easy task because many Chapters had no reliable land based connectivity or power.



The Navajo Nation Department of Head Start

2. Increase usage of tools and technology for creating and preserving local culture and language.
3. Increase opportunity for digital skill acquisition.
4. Make sure that the services provided would continue after the grant ended by providing opportunities to make the system self-sustainable.
5. Provide basic and ongoing training that engages people by showing them how to solve everyday problems with the system.



The computers and Internet access, along with training and software, enable residents to enter a world far beyond the territorial boundaries, to participate in the Information Age, and to pursue their own interests in education, communication, research, and entertainment.

The satellite-based connectivity is more than just for Internet. It is a true broadband wireless private network that provides digital broadcast, video conferencing and connectivity to other schools, libraries and organizations around the world.

Ongoing funding of projects related to the OnSat installed satellite communications system by organizations like USAC, government agencies, foundations, businesses and industry will assure the long-term sustainability of many Chapter

programs. The goal is to use these connection points around the Navajo Nation to allow other organizations to have the same type of connectivity and share in the cost so that the program will someday be fully self-sustainable.

The Navajo Nation Department of Head Start leverages the Gates Grant

By wirelessly connecting to the Chapters, Head Start was able to leverage the Gates grant and connect over 200 Head Start schools and buildings across the Navajo Nation

The Navajo Nation Department of Head Start (NND OHS) is one of the largest Head Start organizations operating in the United States today. There are five Head Start Agency offices: Northern Navajo, Eastern Navajo, Central Navajo, Western Navajo, and Ft. Defiance.

The Central Administration is located in the heart of Navajo land, Window Rock, AZ. Currently, 4,013 children ages 3-5 are enrolled in 205 Head Start centers and Home Base programs.

Each year the 0-5 age population increases. Projected numbers indicate that there will be at least two hundred more children in the program by the fall of 2004. With this rise in numbers,



The Navajo Nation Department of Head Start

comes the critical need for an increase in the number of accredited, technically capable teachers and facilities to provide all the vital Head Start and Early Head Start services.

Currently, NNDOHS is taking on several new initiatives to improve the quality and delivery of services to children, families, and communities. The I Care Curriculum, Fatherhood Initiative, STEPS Literacy Program, Positive Child Outcomes, revision of the Dine' Curriculum, the Head Start Family Information System (HSFIS), and Innovative Technology are currently underway.

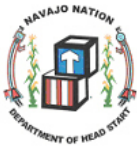
The I Care Curriculum is a parent involvement and mentoring curriculum designed to involve parents not only in the classroom as volunteers, but also in the home through positive parenting. The Fatherhood Initiative is focusing on empowering and strengthening the role of fathers in families. STEPS Literacy is a curriculum designed to enhance language and literacy skills and improve the teacher's teaching performance in the classroom. Positive Child Outcomes is a framework intended for Head Start programs to design ongoing assessments of the progress and accomplishments throughout the child's enrollment in Head Start.

The HSFIS are tools via satellite and wireless that aid the NNDOHS in tracking, monitoring, and assessing the progress and accomplishments of each enrollee. As a result, the entire Dine' Curriculum is undergoing revision to incorporate these initiatives.

NNDOHS has taken a big step forward in technology by establishing a website on the Internet and having Intranet capabilities. (www.nnheadstart.org) As a result of recent efforts and investments, all Head Start centers and Home Base programs are now linked via satellite. With this capability, these new initiatives can be implemented, and more importantly, information can be shared and disseminated without delay, whereby, the amount of time and travel between the 205 local Head Start centers and Home Base programs, the five Agency offices, and Central Administration will reduce dramatically.

The Department of Head Start is currently working with both staff and parents in Early Childhood Development classes at Dine' College, University of New Mexico, San Juan College, Highlands University, Coconino Community College, Northern Arizona University, Fort Lewis College, and Northland Pioneer College. However, there are some major issues that tend to surround staff and parents seeking enrollment and accreditation in higher education programs: (1) Transportation; (2) Financial Aid and (3) Family Support. It is extremely daunting for a young parent with young children to find the time and financial means to trek for miles to take classes. Time spent traveling means less time spent with their children, work, community, and studies, an equation that often leads to frustration and failure to complete a course of studies.

Through a collaborative process among the varied school systems across the Navajo Nation, school administrators and teaching staff identified Literacy such as Reading, Writing and Cognitive proficiency to be the most vital areas in need of improvement among our Navajo students. Research has shown that successful readers begin school with about 3,000 hours of reading readiness skills. Tragically, many of the Navajo children start their first year of classroom instruction with less than 300 hours of reading skills. The Department of Head Start served a total of 6,436 Head Start families, which 515 families have been identified in needing Education or Literacy assistance. The STEPS program is yet another indication of the commitment NNDOHS has made to improving early literacy. Fathers in the program are being urged and encouraged to read consistently to their children.



The Navajo Nation Department of Head Start

Professional development is also considered a critical need in many of the schools across the Navajo Nation. Teachers have begun to create individualized, three-year professional development plans to help them determine goals for more effective instructions. The Department of Head Start's 2000-2001 Program Information Report indicated a total of 167 Teachers; 369 Teacher Assistants and 58 Home-based Teachers. Only, 33 teaching staff have obtained their Associate Degrees in Early Childhood Education. There are 128 staff members that have their Child Development Associate (CDA) credentials, with 158 staff members many of whom are working toward a CDA or would like to begin the process. A high percentage of the NNDOHS teachers' assistants are also very young parents. While the program has had a high success rate with these parents, it is imperative to ramp up their qualifications. There is a strong need to be able to further their education without leaving their children in order to go to classes at schools that are often more than four hours' drive away from home.

The next steps for the Navajo Nation Department of Head Start:

NNDOHS has dedicated its energies over the past two years to closing the digital divide, committing more than a million dollars to providing broadband connectivity and the latest in satellite technology to all of its Head Start sites. At this point, NNDOHS is now ready, willing and eager to close the educational divide that has existed due to the low economic and rural isolation of its population.

The NNDOHS program faces the dilemma of having to bring its schools and teachers into the 21st century. The national Head Start office has numerous staffing and degree requirements. By September, 2003, at least 50 percent of all Head Start teachers must have a minimum of an associate degree in early education or be enrolled in a program to receive such a degree.

In order to comply with the Head Start qualification requirements as well as the satisfy the Navajo Nation's need to advance its Head Start program into the 21st century, Head Start is currently applying for a PT3 grant that will use the existing satellite and wireless infrastructure to prioritize a substantial list of needs to be addressed by the proposed grant:

- Most of the NNDOHS teachers are not fully accredited. Many are working on their degrees but find the process extremely difficult due to distance, financial problems, and other reasons. There is a great need for more pre-service teachers to become fully credentialed with the knowledge and skills so important to an effective Head Start Program.
- All the Head Start program centers now have at least 1 computer as well as a satellite connection to the Internet, yet many of the teachers have had little or no training in the use of technology or the pedagogy of teaching with technology. Teachers need to learn how to use the technology to its full advantage.
- Much of the student assessment is done with paper forms that have to be filled out routinely. Many of the teachers do not know how to use available software as well as how to interpret the results and trends that can be shown. Teachers need to be able to affectively assess and document student progress and achievement using technology



The Navajo Nation Department of Head Start

- Because of the remote locations, teachers need to be able to communicate with each other through technology to form a supportive and collaborative community of learners
- With many of the program houses situated many miles from possible centers of learning, colleges, and each other there is a great need for alternative professional development options.
- Turnover of teachers in the Navajo Head Start program is high. This turnover needs to be lowered dramatically. There is a great need to better retain teachers in training in remote locations by establishing a professional mentoring and support system using the technology available.

Significance of the NNDOHS -> 21 project

Excellent, credit-bearing, teacher preparation Internet courses could become one of the most significant applications of networking and budding support systems on the Navajo Nation. Carefully crafted e-courses can be created and delivered to remote centers at any time. The technology capacity will offer a rich array of new content and educational programs to all pre-service teachers that are beyond the wildest dreams of many schools and school districts.

The success of the OnSat installed technology has the potential for impact far beyond the Head Start community. As the goals and objectives are met, other schools within the Navajo Nation will realize the value of what the project has done for NNDOHS. The ability to train, communicate, and teach online will allow schools across the Nation to expand course options for students and professional development opportunities for teachers.

Other organizations such as Health, Agriculture, Community Development, Public Safety, etc can optimize this new technology to achieve a new level of success on the Navajo Nation.

The Navajo people are very proud of their heritage with great right. There is a strong push on the part of the local government as well as other factions of the Navajo Nation that students be taught the Navajo language and customs as well as the day-to-day performance objectives required by funding agencies. By using technology to build courses and programs that take the "Navajo factor" into account, the Navajo Nation promises to lead the way in supporting education while validating the extreme importance of cultural heritage.

Some of the Goals identified and that are being addressed are:



The Navajo Nation Department of Head Start

Objective:

- **To enable Navajo Nation teachers to become fully credentialed**
- **To train teachers to incorporate the use of technology into their curriculum to the fullest while following proscribed best practices**
- **To research and then utilize available software utility programs designed to interpret, analyze and incorporate student achievement and testing data into the instructional process**
- **To prepare the Navajo Nation teachers with the technological skills necessary to effectively use the software to assess and document student progress and achievement**
- **To establish, through technology, a community of learners among the remotely placed teachers in the program while creating an ongoing professional development system for Navajo Education centers and teachers.**
- **To ensure retention of teachers in remote locations by establishing a professional mentoring and support system using technology**

The funding potential for this project coupled with the new and innovative online course development prospects offers the Head Start program and the University of New Mexico (Gallup) the opportunity to expand dramatically. In this day and age, where quality online courses are still a commodity, people have neither the inclination nor the time to waste on taking mediocre courses. Teachers everywhere want to be able to take professional development courses that ensure not only their re-certification but increase in pay, knowledge, and applicable skills. Teachers-in-training will learn many new skills that they will be able to apply for years to come. The more they learn, the more they will want to learn. The benefits of their learning will have far reaching effects on their students, schools, families, and communities. The trickle down effect to the entire community will be enormous.

The Navajo Nation/OnSat installed network will pioneer advances in evaluation methodologies, while using the components of successful traditional evaluations described by practitioners of Formative and Summative evaluations. The enhancements are in the area of process. Process evaluation must gather data from ALL stakeholders, use the data for informing project leaders, and make the data presentations available for public review. This technology will gather and manage the data from even the most remote of sites and will be used to demonstrate change or lack of change in the results of the projects in which the Chapters engage. The results will be open for all to review via Internet. There is an open invitation for other funded projects around the nation to join us in a benchmarking effort.



The Navajo Nation Department of Head Start

The Navajo Nation is now ready to provide for the rest of the states and Federal Government a test of an innovative and substantive teacher preparation project based on satellite delivered Internet capacities at all of the Chapter Houses and Head Start buildings.

